

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 03-023294

(43)Date of publication of application : 31.01.1991

(51)Int.Cl.

C30B 25/18
H01L 21/205

(21)Application number : 01-155875

(71)Applicant : FUJITSU LTD

(22)Date of filing : 20.06.1989

(72)Inventor : OTSUKA NOBUYUKI
OZEKI MASASHI

(54) METHOD FOR GROWING COMPOUND SEMICONDUCTOR CRYSTAL

(57)Abstract:

PURPOSE: To enable satisfactory epitaxial growth of an atomic layer at a low temp. and to form a steep hetero interface by feeding at least one of the constituent elements of a compd. semiconductor as an alkyl compd. and carrying out epitaxial growth of an atomic layer on a specified face of a substrate.

CONSTITUTION: When a compd. semiconductor crystal is grown on a substrate of a compd. semiconductor such as GaAs by epitaxial growth of an atomic layer, at least one of the constituent elements of the compd. semiconductor to be grown is fed as a gaseous alkyl compd. such as (C₂H₅)₃Ga and the (110) face of the substrate is used as the growth surface. Since a Ga atom bond to three As atoms on the growth surface of the substrate and has only one dangling bond, only one atomic layer can be adsorbed with the (C₂H₅)₃Ga and epitaxial growth of the atomic layer is enabled.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]